

1444

E.5  
5/13/88

RECEIVED

UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF ILLINOIS  
SOUTHERN DIVISION

UNITED STATES OF AMERICA, )  
 )  
Plaintiff, and )  
 )  
STATE OF ILLINOIS, )  
 )  
Realigned Plaintiff, )  
 )  
v. )  
 )  
VILLAGE OF SAUGET, ILLINOIS, )  
 )  
Defendant. )  
\_\_\_\_\_ )

Civil Action No. 88-5131

HONORABLE WILLIAM L. BEATTY

FILED

MAR 18 1992

STUART J. O'HARE  
CLERK U. S. DISTRICT COURT  
SOUTHERN DISTRICT OF ILLINOIS  
EAST ST. LOUIS OFFICE

CONSENT DECREE

000001

100

10  
11  
12  
13  
14

- ii -



ATTACHMENT C . . . . .	81
TABLE OF EFFLUENT LIMITS AND MONITORING REQUIREMENTS	
ATTACHMENT D . . . . .	83
CALCULATION OF WHOLE EFFLUENT TOXICITY (WET) IN TU <sub>a</sub>	
ATTACHMENT E . . . . .	84
COMPLIANCE PROCEDURE FOR WHOLE EFFLUENT ACUTE TOXICITY LIMIT	
ATTACHMENT F . . . . .	87
CHEMICAL SPECIFIC MONITORING PROGRAM	

012304

UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF ILLINOIS  
SOUTHERN DIVISION

UNITED STATES OF AMERICA,	)	
	)	
Plaintiff, and	)	
	)	
STATE OF ILLINOIS,	)	Civil Action No. 88-5131
	)	
Realigned Plaintiff,	)	HONORABLE WILLIAM L. BEATTY
	)	
v.	)	
	)	
VILLAGE OF SAUGET, ILLINOIS,	)	
	)	
Defendant.	)	
<hr style="border: 0.5px solid black;"/>		

**CONSENT DECREE**

**WHEREAS**, Plaintiff, United States of America, on behalf of the United States Environmental Protection Agency ("U.S. EPA"), filed the Complaint herein on May 13, 1988, an Amended Complaint herein on July 28, 1989, and a Second Amended Complaint herein on August 1, 1990, against Defendant, Village of Sauget, Illinois ("Sauget"), alleging violations of the Clean Water Act (the "Act"), 33 U.S.C. § 1251 et seq., of National Pollutant Discharge Elimination System ("NPDES") permit No. IL0065145, and of an Administrative Order, Docket Number V-W-87-AO-39;

**WHEREAS**, Sauget filed its Answer and Affirmative Defenses to the Complaint on June 23, 1988, to the Amended Complaint on January 15, 1990, and to the Second Amended

## **LIST OF ACRONYMS**

<b>ABRTF</b>	<b>American Bottoms Regional Wastewater Treatment Facility</b>
<b>CASR</b>	<b>Chemical Abstracts Service Registry</b>
<b>ETIS</b>	<b>Effluent Toxicity Source Identification Study</b>
<b>ETSRAP</b>	<b>Effluent Toxicity Source Reduction Action Plan</b>
<b>IEPA</b>	<b>Illinois Environmental Protection Agency</b>
<b>IPCB</b>	<b>Illinois Pollution Control Board</b>
<b>IU</b>	<b>Industrial User</b>
<b>MCRT</b>	<b>Mean Cell Residence Time</b>
<b>MG</b>	<b>Million Gallons</b>
<b>MGD</b>	<b>Million Gallons per Day</b>
<b>NPDES</b>	<b>National Pollutant Discharge Elimination System</b>
<b>PACT/WAR</b>	<b>Powdered Activated Carbon Treatment/Wet Air Regeneration</b>
<b>P/C Plant</b>	<b>Physical Chemical Plant</b>
<b>TU<sub>a</sub></b>	<b>Toxic Units, Acute</b>
<b>U.S. EPA</b>	<b>United States Environmental Protection Agency</b>
<b>WET</b>	<b>Whole Effluent Toxicity</b>

Complaint on August 20, 1990, denying the alleged violations of the Act, of NPDES Permit Number IL0065145, and of the Administrative Order, Docket Number V-W-87-AO-39;

**WHEREAS**, Sauget is a municipality organized and existing under the laws of the State of Illinois, that owns and causes to be operated, by the Sauget Sanitary Research and Development Association, two wastewater treatment plants hereinafter referred to as the American Bottoms Regional Wastewater Treatment Facility ("ABRTF") and the Physical/Chemical Plant ("P/C Plant");

**WHEREAS**, on March 21, 1986, the Illinois Environmental Protection Agency ("IEPA") issued NPDES permit No. IL0065145 (the "NPDES permit") to Sauget, setting effluent limits on Sauget's discharge of pollutants from the ABRTF;

**WHEREAS**, the Illinois Pollution Control Board ("Board") entered an Opinion and Order on December 15, 1988, in the Village of Sauget v. IEPA, PCB 86-57 and PCB 86-62 (Consolidated), and Village of Sauget v. IEPA, PCB 86-58 and PCB 86-63 (Consolidated), permit appeal ("Board decision") remanding the NPDES Permit to the IEPA and ordering the IEPA to delete or modify various conditions thereof;

**WHEREAS**, on appeal by Sauget of the Board decision to the Illinois Appellate Court, Village of Sauget v. IPCB, et al. and Monsanto Company v. IPCB, et al. (No. 5-89-0198, Fifth Dist., December 13, 1990), the Appellate Court entered an Opinion in which it ordered that it was vacating certain contested conditions in the NPDES permit appealed by Sauget to the Board and ordered the Board to direct the IEPA to issue a new draft NPDES permit for the ABRTF;

010001

**WHEREAS**, on April 1, 1991, the State of Illinois filed a petition for leave to appeal in the Illinois Supreme Court said Appellate Court Opinion, and on June 5, 1991, the Illinois Supreme Court denied the petition for leave to appeal;

**WHEREAS**, Sauget has an approved pretreatment program, pursuant to Section 402(b) of the Clean Water Act, 33 U.S.C. § 1342(b), which has been formally adopted by Sauget;

**WHEREAS**, the State of Illinois is a realigned co-plaintiff in this action;

**WHEREAS**, Sauget's execution of this Consent Decree is not, and shall not be, an admission of any fact, nor an admission of liability by Sauget on any issue in this litigation; and

**WHEREAS**, the parties have agreed that settlement of this matter is in the public interest and that the entry of this Consent Decree without a trial on any issue of fact or law is the most appropriate means of resolving this matter;

**NOW, THEREFORE**, before the taking of any testimony, upon the pleadings, and without adjudication of any issues of fact or law, or admission by Sauget of any fact, violation, or liability, and upon consent of the parties hereto, it is hereby **ORDERED** and **DECREED** as follows:

**[SECTION] I. JURISDICTION**

**[Paragraph] 1.** This Court has jurisdiction over the parties and the subject matter of this action pursuant to 28 U.S.C. § 1331 and 1355, and Section 309(b) of the Act.

000000



33 U.S.C. § 1319(b). Venue is proper in this District pursuant to Section 309(b) and (e) of the Act, 33 U.S.C. § 1319(b) and (e).

## **II. APPLICABILITY**

2. The provisions of this Consent Decree shall apply to and be binding upon the United States, the State of Illinois, and the Village of Sauget, as well as its officers, directors, agents, employees, successors, and assigns. Sauget shall provide a copy of this Consent Decree to any successor owner or successor operator of the ABRTF or the P/C Plant prior to transfer of the ownership or operation interest, and shall simultaneously notify U.S. EPA, Region 5, the United States Attorney for the Southern District of Illinois, and IEPA that such notice has been given. This Consent Decree is entered into in full and final settlement as to Sauget of all claims and violations alleged in and arising out of plaintiffs' respective allegations in this lawsuit up to the date of lodging of this Consent Decree.

3. Sauget shall provide a copy of this Consent Decree, for informational purposes, to each of its officers, directors, trustees, agents, and contractors and to each contractor it retains hereafter to perform work prescribed herein prior to executing any contract relating to such work, and shall do so promptly for contractors currently under existing contracts.

### **III. OBJECTIVES**

4. The express purpose of the parties in entering into this Consent Decree is to further the goals of the Act, specifically Sections 101, 301, and 307 of the Act, 33 U.S.C. §§ 1251, 1311, and 1317. To this end, this Consent Decree contains provisions directed at reducing effluent toxicity. All plans, studies, construction, monitoring programs, inspections, and pretreatment program activities shall have the objective of ensuring full compliance with the Act and the provisions of applicable Federal and State laws and regulations governing the ABRTF.

#### **III-A. FINDINGS**

5. The Court hereby finds, under Section 505 of the Clean Water Act, that the United States and the State have commenced and diligently prosecuted this civil action to require compliance with the existing NPDES permit, standards, and limitations for those pollutants and other parameters which are expressly regulated by this Consent Decree.

6. The Court hereby finds that implementation at the ABRTF of the Compliance Program specified in Section IV. of this Consent Decree is in the public interest.

### **IV. COMPLIANCE PROGRAM**

7. Sauget shall achieve and hereafter maintain compliance with the compliance program set forth below. IEPA, as the delegated State Agency under the provisions of Section 205(g) of the Act, 33 U.S.C. § 1285(g), and 40 CFR Part 35, Subpart J, has reviewed the "Second Supplement to Amended Facilities Plan for Regional Facilities

010010

Improvements" ("Second Supplement"), dated July 12, 1991, and, based upon the data furnished by Sauget, concludes that the facilities as described in the Second Supplement and which are required under Subsection IV.E. of this Consent Decree constitute the cost-effective treatment facility and that, upon the completion and operation of the same, the facility will be a functional replacement of an operable PACT/WAR system.

8. Under the Renewed Construction Grants Program Delegation Agreement between U.S. EPA Region 5 and IEPA, the Water Division of U.S. EPA Region 5 may provide technical assistance to the Division of Water Pollution Control of IEPA on Clean Water Act grant issues where there is a significant interest that requires a greater federal role. Upon the request of the Division of Water Pollution Control of IEPA, the Water Division of U.S. EPA Region 5 consulted with the Division of Water Pollution Control concerning whether the facilities described in the Second Supplement are cost-effective and whether the facilities, when constructed and in operation, will be a functional replacement of an operable PACT/WAR system, and did not object to IEPA's technical conclusion. The Division of Water Pollution Control of IEPA and the Water Division of U.S. EPA Region 5 will not reexamine that technical conclusion, absent significant new information not contained in the Second Supplement nor otherwise in the possession of the Division of Water Pollution Control of IEPA and the Water Division of U.S. EPA Region 5 as of the date of the Second Supplement.

9. Notwithstanding the language in Paragraphs 7 and 8, above, nothing in this Consent Decree shall be construed to limit or otherwise affect the right of U.S. EPA to conduct and resolve any audit or render any report authorized pursuant to 33 U.S.C. § 1361

and the regulations implementing that section, and the Inspector Generals Act of 1978, 5 U.S.C. Appendix. Further, nothing in this Consent Decree shall be construed to be a written determination under the provisions of 40 CFR Part 30, Subpart L.

**A. CARBON ADDITION AND MEAN CELL RESIDENCE TIME REQUIREMENTS**

10. Sauget shall continuously add powdered activated carbon to the secondary wastestream of the ABRTF at a target rate of not less than twenty-nine (29) milligram per liter ("mg/l") dosage. Sauget may increase this dosage as necessary to meet the applicable effluent limits set forth in this Consent Decree. Sauget shall follow the protocol for addition of powdered activated carbon to the ABRTF described in Attachment A to this Consent Decree. Sauget shall use a continuous carbon feed system at the ABRTF to add this dosage to the ABRTF secondary wastestream except that a manual carbon feed system shall be used during reasonable periods of shutdown of the continuous carbon feed system for maintenance or repair.

11. Sauget shall maintain a target mean cell residence time ("MCRT") of not less than twenty (20) days unless operating at such an MCRT would threaten, based upon consideration of operator experience, weather conditions, and plant operational data, the integrity of the biological treatment process of the ABRTF. If Sauget reduces the MCRT to less than four (4) days, Sauget shall notify the U.S. EPA and IEPA of such reduction by telephone or in writing within forty-eight (48) hours, or within seventy-two (72) hours if such reduction is commenced on a Friday or Saturday, and shall thereafter make every practicable effort to return to the MCRT target of not less than twenty (20) days.

12. "Mean Cell Residence Time" (MCRT) is defined as the total mass of sludge solids held in the mixed liquor tanks and final clarifiers divided by the rate that the sludge solids leave the system. MCRT, for the purposes of this Consent Decree, is mathematically defined as: *[Continued on page 9]*

**Note:**  
**This block**  
**intentionally**  
**left blank**

$$\text{MCRT} = \frac{VX + V_{fc}X_{fc}}{F_wX_w + F_eX_e}$$

Where:

MCRT = mean cell residence time, days.

V = volume of mixed liquor under aeration, million gallons ("MG").

X = concentration of carbon/waste activated sludge (mixed liquor suspended solids), mg/l.

$V_{fc}$  = volume of mixed liquor solids in final clarifier below the sludge-water interface, MG.

$X_{fc}$  = estimate of mixed liquor solids concentration in final clarifier: average of the mixed liquor suspended solids and the return activated sludge suspended solids, mg/l.

$F_w$  = flow of waste carbon/activated sludge, million gallons per day ("MGD").

$X_w$  = concentration of waste carbon/activated sludge as estimated by the return activated sludge suspended solids, mg/l.

$F_e$  = plant effluent flow, MGD.

$X_e$  = concentration of plant effluent suspended solids, mg/l.

Sauget shall comply with the protocol attached as Attachment B in calculating the mean cell residence time for the ABRTF.

13. Sauget shall report on implementation of the carbon addition and MCRT requirements as specified in Paragraph 63, Subparagraph c. of Section VII of this Consent Decree, "Reporting Requirements."

14. The terms of the Interim Consent Decree entered by the Court on March 17, 1989, addressing carbon addition at the ABRTF, shall be terminated and superseded in their entirety upon entry of this Consent Decree.

**B. MODIFICATIONS TO CARBON ADDITION REQUIREMENTS**

15. a. For the purposes of this Consent Decree, if Sauget demonstrates that the effluent from the ABRTF has changed due to an industrial user's (or industrial users') cessation of substantial reduction of, or continuous pretreatment of pollutants in its discharge, or due to the institution of continuous operating changes at, and/or permanent improvements to, the P/C Plant or the ABRTF itself, and the dosage of activated carbon added to the wastestream could be reduced or eliminated without increasing either: (A) the whole effluent toxicity attributable to non-ammonia related constituents in the ABRTF discharge, as determined by the zeolite test specified in Paragraph 4 of Attachment E to this Consent Decree, or (B) the "bioconcentration potential" of the ABRTF discharge, as defined in Subparagraph 15.b., below (both A. and B. hereinafter collectively referred to as "non-ammonia effluent toxicants"), then Sauget may propose in writing to U.S. EPA and IEPA to cease or reduce carbon addition, stating its reason(s) therefor.

(b. For the purposes of this Consent Decree, the following definitions shall govern:

i. "bioconcentratable pollutants" shall be any chemicals identified as such (including the equivalent terms, "bioconcentratable contaminants," "bioconcentratable compounds," and "bioconcentratable components") in the results of the Bioconcentration Study specified in Subsection IV.L. of this Consent Decree.

ii. "level of concern" for a bioconcentratable pollutant shall be:

(A) the Reference Ambient Concentration ("RAC"), if one can be determined in accordance with the procedures specified in Chapter 4 of the U.S. EPA's Guidance on Assessment and Control of Bioconcentratable Contaminants in Surface Waters, March 1991

Draft, employing the following assumptions and data sources:

Criterion Cancer Risk Level (RL) =  $10^{-5}$   
Human Body Weight (WT) = 70 kg  
Fish Consumption Rate (FC) = 0.0065 kg/day  
Percentage of fish contaminated = 100%  
Contaminated Water Intake Rate (WI) = None  
Ratio of Fish Lipid Fraction (L) = 1  
Trophic Level = 3  
Food Chain Multiplier (FM) = 1 ( $\text{LogP} \leq 5.5$ )  
Food Chain Multiplier (FM) = 10 ( $\text{LogP} > 5.5$ )  
Dietary Exposure (DT) = None  
Inhalation Exposure (IN) = None

Source for Bioconcentration Factor (BCF) = Procedure in Section 4.4, "BCF Evaluation"

Sources for  $q_1^*$  and RfD = (1) U.S. EPA Integrated Risk Information System ("IRIS"); (2) U.S. EPA Health Effects Assessment Summary Tables ("HEAST"), OERR 9200 6-303

(B) if a RAC cannot be determined in accordance with (A), above, the level of detection for that chemical in the ABRTF effluent, using the analytical procedures specified at Paragraph 36 of this Consent Decree, unless an alternative "level of concern" is designated by agreement of the parties.



iii. the "bioconcentration potential" of the ABRTF discharge shall be deemed to have increased following a reduction in the powdered activated carbon dosage (PAC-reduction) if either of the following occurs:

(A) the mean ABRTF discharge concentration of any bioconcentratable pollutant that was found to be present at a "level of concern" in the ABRTF discharge before the PAC-reduction has, after the PAC-reduction, increased by more than one standard deviation or

(B) any bioconcentratable pollutant that was not found to be present at a "level of concern" in the ABRTF discharge before the PAC-reduction is, after the PAC-reduction, found to be present at a "level of concern" in the ABRTF discharge.

c. With respect to Subparagraph 15.a., above, Sauget's proposal shall include: (1) the results of effluent chemical monitoring and/or acute and chronic toxicity testing and/or pilot plant studies and/or plant testing, as appropriate, showing that a cessation of, or reduction in, the carbon addition to the ABRTF will not result in an increase of non-ammonia effluent toxicants in the ABRTF discharge; (2) the specific carbon dosage reduction proposed, if applicable; and (3) a demonstration that the change in the ABRTF wastewater characteristics making possible the reduction in carbon dosage will be continuous and is not of a temporary nature. Any such proposal by Sauget shall not be implemented unless and until it has been approved by (1) both the U.S. EPA and IEPA, whose approval shall not be unreasonably withheld, or (2) this Court.

16. Sauget may propose in writing to the other parties a modification of the existing ABRTF treatment process which will either enhance the treatment effectiveness of a carbon dosage, or will allow a reduction in the amount of a carbon dosage without increasing the

2017

non-ammonia effluent toxicants in the ABRTF discharge. The proposal shall identify the proposed process modification; describe the specific carbon reduction proposed, if applicable; and demonstrate either: (a) that the proposed reduction in the carbon dosage will not result in a decrease in the level of removal of non-ammonia effluent toxicants or (b) that the proposed process modification will enhance the effectiveness of a carbon dosage in reducing the non-ammonia effluent toxicants in the ABRTF discharge, specifying the quantity of the non-ammonia effluent toxicant reduction expected to be achieved. Any such proposal shall not be implemented unless and until it has been approved by: (1) all of the parties or (2) this Court.

**C. FINAL CONSENT DECREE EFFLUENT LIMITS**

17. For the duration of this Consent Decree, as determined by Section XXIV of this Consent Decree, and commencing upon its entry, Sauget shall comply with the effluent limits and monitoring requirements as stated in Attachment C to this Consent Decree. The results of effluent monitoring conducted pursuant to Attachment C shall be submitted to U.S. EPA and IEPA on a monthly basis, as specified in Section VII of this Consent Decree.

**D. REQUIREMENT TO CONSTRUCT AND OPERATE A HIGH RATE DIFFUSER**

18. Pursuant to the construction contract awarded on October 22, 1990, Sauget shall proceed with construction of an extension of its current ABRTF outfall sewer line, which will culminate in a 100-foot long "high rate" diffuser on the bottom of the Mississippi River. The diffuser shall be operated so that the discharge velocity from each diffuser port continuously meets or exceeds ten (10) feet per second when the ABRTF is operating at a

flow of eighteen (18) MGD or greater. The diffuser shall be constructed in accordance with the construction permit, 1990-AB-4436, issued by IEPA on January 11, 1990, or with that permit as subsequently modified. This Consent Decree shall not constitute a modification of the time of completion in the contract with W. G. Knowles Company for construction of the high rate diffuser. Sauget, to the extent necessary because of the construction of the diffuser, may discharge its effluent from Outfall 001 during such construction. Such discharge from Outfall 001 shall be subject to the same limits and conditions as Outfall 002. For the purposes of this Consent Decree and Sauget's NPDES permit, the diffuser constructed pursuant to this Section IV.D. of this Consent Decree, once in operation, shall be viewed as an extension of Outfall 002 and shall be subject to the same limits and conditions as Outfall 002.

19. In constructing and operating the high rate diffuser, Sauget shall comply with the following schedule: *[Continued on page 15]*

Note:  
This block  
intentionally  
left blank

Activity	Compliance Date
a. Advertise for bids for construction of high rate diffuser	Completed
b. Open bids	Completed
c. Award contract for construction of high rate diffuser	Completed
d. Start construction of high rate diffuser	Completed
e. Submit to IEPA and U.S. EPA a supplement to the existing operation and maintenance manual containing a final plan of operation and operating procedures for the diffuser	Completed
f. Begin operation of high rate diffuser	12/31/91*
*The parties agree that unavoidable delays owing to adverse Mississippi River conditions, including but not limited to river levels above River Stage 15 and unanticipated subsurface conditions, can constitute <u>force majeure</u> events subject to compliance with the procedural provisions of Section XI of this Consent Decree.	

#### **E. REQUIREMENT TO MAKE IMPROVEMENTS AT THE ABRTF**

20. Sauget shall construct the following facilities at the ABRTF needed to improve performance given current basin sizes and anticipated influent flows and pollutant loadings. Such improvements shall be based upon maintaining the integrity of the biological treatment process at the ABRTF and upon achieving, on a daily basis, the target MCRT of not less than 20 days as set forth in Subsection IV.A. of this Consent Decree. Facility construction shall include:

- a. Replacement of existing aeration system with a fine bubble aeration system and improvements to the process air measurement and control systems necessary to optimize

aeration system performance in accordance with Section VII, "Fine Bubble Aeration System," at pages 7 through 11, inclusive, of the Amended Facilities Plan for Regional Facilities Improvements, dated August, 1990, for the ABRTF and P/C Plants ("the Amended Facilities Plan").

b. Improvements to the metering and control of waste activated sludge and return activated sludge to provide more effective process control

c. Replacement of the existing plant control system with a new distributed control system appropriate to existing and anticipated operating conditions in accordance with Section VII, "Plant Control System," at pages 16 through 19, inclusive, of the Amended Facilities Plan

d. Modification/upgrading of the existing lime feed system, for intermittent alkalinity addition.

21. Saugnet shall construct improvements at the ABRTF (as described in Paragraph 20, above) in accordance with the following schedule:

*[Continued on page 17]*

Note:  
This block  
intentionally  
left blank

Activity	Compliance Date
a. Submit to IEPA and U.S. EPA plans, specifications, and construction permit application for improvements.	30 weeks from date of lodging of this Consent Decree.
b. Initiate construction of improvements.	56 weeks from date of lodging of this Consent Decree.*
c. Complete construction and initiate operation of improvements.	147 weeks from date of lodging of this Consent Decree.
<p>*This date assumes ten (10) weeks for IEPA to issue necessary construction permits once Sauget has submitted a complete application for such permits. The date also assumes two (2) weeks for IEPA review and authorization to award construction contracts. Delays in the initiation of construction that result from additional time needed by IEPA to perform these reviews shall extend the schedule by an equal time. However, such extension is conditioned upon IEPA determination that applications and submissions by Sauget are timely and substantially complete. The IEPA shall confirm in writing the revised schedule.</p>	

#### F. INTERIM WHOLE EFFLUENT TOXICITY LIMITS

22. Beginning no later than ten (10) days after entry of this Consent Decree, Sauget shall comply with the less stringent limit of the following: (1) the lowest Whole Effluent Toxicity (WET) limit specified in the following table or (2) the toxicity of the ammonia nitrogen in the effluent as determined in accordance with Attachment D to this Consent Decree.

<b>WET, Measured in Toxic Units Acute ("TUa")</b>	<b>Basis</b>
18	99th percentile, performance-based, maximum daily discharge limitation, using existing test results since addition of 29 mg/l activated carbon.
Current WET Limit	99th percentile, performance-based, maximum daily discharge limitation, derived once each year on the anniversary of the date of entry of this Consent Decree, using all final WET test results obtained by Sauget in accordance with Paragraphs 23, 24, and 25 in this Consent Decree during the most recent 12 months, or 1.0 TU <sub>a</sub> , whichever is higher.

The formulas for determining the effluent ammonia nitrogen toxicity value are included in Attachment D to this Consent Decree.

23. The derivation of the "Current WET Limit" specified in Paragraph 22, above, shall exclude any WET test result: (1) for a sample with an ammonia nitrogen concentration exceeding the applicable interim effluent limit specified in Subsection IV.G. of this Consent Decree; (2) for a sample collected during a period when powdered activated carbon, for whatever reason, was not added at a dosage rate in accordance with Subsections IV.A. and IV.B. of this Consent Decree; or (3) for a sample that is unrepresentative due to an "upset", as defined at 40 CFR 122.41(n), as determined by agreement of the parties or by order of the Court under the Dispute Resolution provisions at Section XIV of this Consent Decree.

24. Sauget shall use the procedure set out in Attachment E to monitor and determine its compliance with the applicable WET limit as specified in Paragraph 22. Sauget shall not

challenge the validity of the WET test results for any sample on the grounds that too much time elapsed between the collection and testing of that sample.

25. Starting within fourteen (14) days after entry of this Consent Decree, Sauget shall perform the tests specified in Attachment E, once every eight days for a period of one year, testing on a different day of the week in each test (i.e., each sample shall be collected one week and one day after the last), and then on a monthly basis thereafter for the duration of this Consent Decree, as determined by Section XXIV of this Consent Decree. These tests shall be coordinated with the chemical monitoring specified in Subsection IV.J., below, such that the same sample is used for both sets of tests. If a sample is unintentionally lost or rendered unusable prior to, or during, testing, a replacement sample may be collected beginning within 108 hours of the end of the original sampling period. If the original sample was scheduled to be tested for additional parameters, such as specific chemicals in accordance with Subsection IV.J. and/or chronic toxicity in accordance with Subsection IV.K., then the replacement sample shall be used for the additional scheduled tests as well. Reports of the results of these tests shall be included in the Quarterly Consent Decree Report described in Section VII of this Consent Decree.



**G. INTERIM AMMONIA NITROGEN LIMITS**

26. a. Effective upon entry of this Consent Decree, Sauget shall comply with the following schedule in reducing the discharge of total ammonia nitrogen (" $\text{NH}_3\text{-N}$ ") from the ABRTF on or before the dates indicated:

**AMMONIA NITROGEN EFFLUENT LIMITS FOR ABRTF  
AVERAGE MONTHLY DISCHARGE LIMITATIONS<sup>a</sup>  
(Not To Be Exceeded at End-of-Pipe)**

Effective Dates		Summer <sup>b</sup> Limitations		Winter <sup>c</sup> Limitations
		$\text{NH}_3\text{-N}$		$\text{NH}_3\text{-N}$
Beginning	Ending	lbs/day	mg/l	lbs/day
Date of Entry	1.5 years from Date of Lodging	28,200	--	32,200
1.5 years from Date of Lodging	3 years from Date of Lodging	23,600	--	27,600
3 years from Date of Lodging	4.5 years from Date of Lodging	8,200	--	14,200
4.5 years from Date of Lodging <sup>d</sup>	Continuing thereafter	--	35 <sup>e</sup>	10,700 <sup>e</sup>

<sup>a</sup>As defined at 40 CFR 122.2.

<sup>b</sup>Summer is defined as 1 May through 31 Oct.

<sup>c</sup>Winter is defined as 1 Nov through 30 Apr.

<sup>d</sup>If the period between the dates of lodging and entry of this Consent Decree should exceed one hundred eighty (180) days, as a result, at least in part, of public comment relating to the ammonia nitrogen controls required by this Consent Decree, then the final compliance date for the ABRTF shall be extended by an amount of time equal to the number of days such period between lodging and entry exceeded one hundred eighty (180) days.

<sup>e</sup>Not a final limit. See Subparagraph 26.c. below.

b. Sauget shall monitor the ABRTF final effluent for ammonia nitrogen five (5) times per week, using 24-hour composite sampling, for the duration of this Consent Decree, as determined by Section XXIV of this Consent Decree. In addition, Sauget shall monitor the ABRTF primary effluent, P/C Plant effluent, and ABRTF final effluent for total kjeldahl nitrogen five (5) times per week, using 24-hour composite sampling, for a period of six (6) months after the entry of this Consent Decree. Sauget shall report the results monthly to U.S. EPA and IEPA, as specified in Section VII of this Consent Decree.

c. Final effluent limits for ammonia nitrogen shall be determined in accordance with Illinois Water Quality Standards and all other applicable State and Federal rules and regulations, based upon the most current ABRTF plant performance data and all other relevant information, in conjunction with reissuance of the NPDES permit.

d. Section 308 information requests, Docket Nos. V-W-90-308-08 and V-W-87-308-03, and the Administrative Order, Docket No. V-W-87-AO-39, shall terminate upon entry of this Consent Decree.

27. U.S. EPA and IEPA agree that Sauget's proper construction and proper operation of the improvements at the ABRTF, as set forth in Subsection IV.E. of this Consent Decree, and Sauget's effective implementation of all provisions related to ammonia control, as set forth in Subsection IV.N. of this Consent Decree, shall satisfy the best degree of treatment requirements for ammonia nitrogen under 35 Ill. Adm. Code 304.102(a)

28. At the first opportunity, given conditions on the Mississippi River, following Sauget's installation of the high rate diffuser, Sauget shall undertake an evaluation of the performance of the high rate diffuser. This evaluation by Sauget shall be performed at a low river stage, defined as between negative four and one half (-4.5) and positive five (+5.0) feet (all river stages measured at the St. Louis Corps of Engineers River Gage). The study shall examine the area ("diffuser study area") of the Mississippi River extending from fifty (50) feet upstream of the diffuser to two thousand (2000) feet downstream of the diffuser and a sufficient distance east and west of the ends of the diffuser to encompass the edges of the discharge plume (defined for the purposes of this study as the line (thousand(1000)-fold dilution isopleth) beyond which the concentration of the plume constituents is more than one thousand (1000) times less than the end-of-pipe concentration leaving the diffuser). The study shall determine, for the diffuser study area: (1) the actual in-stream location of the center line of the discharge plume (based upon a dye dispersion study or, as an alternative, a drogue study or equivalent) and (2) the actual degree of in-stream mixing of the discharge plume with the Mississippi River throughout the diffuser study area (based upon a dye dispersion study), including measurements at three depths, 0.2, 0.6, and 0.8 of total water depth, throughout the diffuser study area to adequately characterize the vertical mixing patterns, and giving particular attention to the immediate vicinity of the wing dam (both upstream and downstream). To ensure that the single dye dispersion study adequately characterizes the plume mixing, sampling transects shall be distributed as follows:

<b>Transect No.</b>	<b>Distance (Up) Downstream from Diffuser (feet)</b>
1	(20)
2	20
3	50
4	100
5	200
6	500
7	1000
8	1300
9	1500
10	1600
11	2000

At least five (5) sampling stations along Transects No. 1 through 11 shall be spaced at approximately equal distances across the plume. In addition, the locations of the inward and outward edges of the plume shall be determined. All locations in the plane of the river surface shall be referenced to the shoreward end of the diffuser or to a line perpendicular to the diffuser at its shoreward end; vertical locations shall be expressed both as distances in feet below the surface and as fractions of river depth. In addition, the evaluation shall include a detailed engineering analysis, certified by a licensed engineer, verifying the as-built performance of the diffuser with regard to the calculated discharge port velocities that will occur at effluent flow rates ranging from five (5.0) to fifty (50) MGD and river stages from negative five (-5.0) to positive thirty-five (+35) feet, as measured at the St. Louis Corps of Engineers River Gage. Sauget shall submit a plan for such study by September 1, 1991, for

review and approval by U.S. EPA and IEPA. U.S. EPA and IEPA shall, in writing, approve or disapprove the submitted plan within thirty (30) days of its receipt and shall state each basis for disapproval thereof, if applicable.

29. Sauget shall complete a report setting forth the results of the study described in Paragraph 28, above, including graphical results of the analysis, and submit the report to U.S. EPA and IEPA for review no later than March 1, 1993.

30. As part of the report specified in Paragraph 29, above, Sauget may apply to the IEPA for a preliminary determination of whether it has made an adequate demonstration under 35 Ill. Adm. Code 302.102(b). Such determination is the first of two (2) determinations made by IEPA in order for a permittee to qualify for a mixing zone under Illinois law. The second determination relating to "best degree of treatment," under 35 Ill. Adm. Code 304.102(a), will be made by IEPA at a later date. As to ammonia nitrogen, said second determination shall be made pursuant to Paragraph 27 of this Consent Decree. For the purposes of this Consent Decree, the "preliminary determination" referenced above means a determination that the relevant requirements of mixing associated with Sauget's outfall diffuser under 35 Ill. Adm. Code 302.102(b) of the Illinois mixing zone regulations have been satisfied. The IEPA shall approve or disapprove, in writing, Sauget's application within ninety (90) days of its receipt and shall state each basis for disapproval thereof, if applicable. If the application has been approved by IEPA, a final determination, within the context of an NPDES permit renewal, shall be based upon Sauget's compliance with the "best degree of treatment" requirement of 35 Ill. Adm. Code 304.102(a).

## **I. BIOLOGICAL STUDY**

31. Sauget shall conduct a biological study of the diffuser study area defined in Subsection IV.H., above. The study shall examine fish populations which are actually present (as determined by one sampling during the time period from July through October in either 1994 or 1995) in the area affected by, or within the plume of, the ABRTF discharge (as shown by study results found under Subsection IV.H., above). Sauget shall include the ~~near shore and wing dam. (particularly the lee, or downstream, side) areas in the sampling.~~ Sauget shall characterize the substrate on the downstream side of the wing dam and southward along the shore between a distance of sixteen hundred (1600) and two thousand (2000) feet from the diffuser in the same manner as the Aquatic Habitat Assessment dated March, 1990, previously submitted by Sauget to U.S. EPA. Sauget shall perform the biological study not later than the following schedule:

Activity	Date
a. Submit to IEPA and U.S. EPA a workplan for biological survey	Not later than 10/1/93
b. Conduct approved biological survey	Between 7/1/94 and 10/31/94 or between 7/1/95 and 10/31/95
c. Submit formal written report (with NPDES permit application)	Not later than 5/1/96

**J. REQUIREMENT TO CONDUCT CHEMICAL SPECIFIC MONITORING PROGRAM**

32. Beginning within thirty (30) days of entry of this Consent Decree, Sauget shall conduct a chemical specific monitoring program, as specified in Attachment F, on the ABRTF primary clarifier effluent, the ABRTF final effluent, and the P/C Plant effluent, monthly for one year and then quarterly thereafter for the duration of this Consent Decree, and on the ABRTF secondary sludge, quarterly for the duration of this Consent Decree, as determined by Section XXIV of this Consent Decree. The results of the chemical specific monitoring shall be included in the Quarterly Consent Decree Report described in Section VII of this Consent Decree.

**K. CHRONIC TOXICITY TESTING**

33. Within ninety (90) days of entry of this Consent Decree, Sauget shall submit to U.S. EPA and IEPA for approval a chronic toxicity testing plan using the methods set out in "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Fresh Water Organisms, 2nd Edition," EPA 600/4-89-001, Method 1002.0, except that a single effluent sample shall be used. Alternate chronic test methods may be used upon approval of U.S. EPA and IEPA. The plan shall include chronic toxicity tests on Ceriodaphnia dubia using ABRTF final effluent, to be conducted quarterly for one year and thereafter on a yearly basis for the duration of this Consent Decree, as determined by Section XXIV of this Consent Decree. The chronic tests shall be performed on the same sample used for the whole effluent toxicity monitoring and chemical specific monitoring specified in Subsections IV.F. and IV.J., above, respectively.

34. Sauget shall commence the quarterly testing not later than sixty (60) days after receiving U.S. EPA and IEPA approval of the chronic toxicity testing plan.

35. Reports of the results of the chronic tests shall be included in the Quarterly Consent Decree Report described in Section VII of this Consent Decree.

#### **L. BIOCONCENTRATION STUDY**

36. Sauget shall conduct a bioconcentration study in accordance with the protocol at Section 3.2 ("Effluent Option") and the methods specified in Appendix B ("Laboratory Procedures for Determining Bioconcentratable Chemicals in Aqueous Samples"), in the U.S. EPA document, Guidance on Assessment and Control of Bioconcentratable Contaminants in Surface Waters, March 1991 Draft, utilizing the following specific parameters and procedures:

- "reverse search" protocol must be used;
- all peaks must be searched against the most current, full EPA/NIH/NBS library of mass spectra; and
- the criterion for "tentative identification" shall be a seventy (70) percent fit or better.

37. Not later than ninety (90) days after submittal of the report for the second chronic toxicity test specified in Subsection IV.K., above, Sauget shall submit a bioconcentration study plan proposing specific testing and quality assurance procedures to U.S. EPA and IEPA, for review and approval. U.S. EPA and IEPA shall approve or disapprove, in writing, the submitted plan within thirty (30) days of its receipt and shall state each basis for disapproval thereof, if applicable.



38. Within the one and one-half (1½) year time period commencing upon receipt of U.S. EPA and IEPA approval, Sauget shall carry out the approved bioconcentration study plan on three (3) twenty-four (24) hour composite, ABRTF, final effluent samples collected during a period of normal operations by the significant industrial users. Sauget shall contact the significant industrial users after the bioconcentration study samples have been collected to confirm that the respective industrial users' operations were normal during the sampling period.

39. Sauget shall submit a report containing the results of the bioconcentration study within one hundred twenty (120) days of the completion of testing on all three (3) samples, as part of the Quarterly Consent Decree Report described in Section VII of this Consent Decree.

40. U.S. EPA or IEPA shall be provided a split of any sample upon request.

**M. EFFLUENT TOXICITY SOURCE IDENTIFICATION STUDY AND REDUCTION ACTION PLAN**

41. Beginning on the date two (2) years after entry of this Consent Decree, Sauget shall examine the results of acute toxicity testing for the most recent six (6) months to determine whether the acute WET attributable to non-ammonia related constituents (as measured by the fractionation test specified in Paragraph 4 of Attachment E) of the ABRTF effluent is being maintained consistently below two (2.0) TUa. For the purposes of this provision, "consistently below two (2.0) TUa" means that the geometric mean of the most recent six (6) acute toxicity test results must be less than two (2.0) TUa, and at least two (2) of the most recent three (3) test results must be less than two (2.0) TUa.

42. If the acute non-ammonia effluent toxicity is below two (2.0) TUa, as determined in accordance with Paragraph 41, no further action need be taken under this Subsection IV.M., except to report such results to IEPA and U.S. EPA. If the acute non-ammonia effluent toxicity is two (2.0) TUa or greater, as determined in accordance with Paragraph 41, then Sauget shall perform an Effluent Toxicity Source Identification Study ("ETSIS"). Sauget shall complete the data analysis and determination specified in Paragraph 41 and report the results to IEPA and U.S. EPA in writing within one month of the effective date of this requirement.

43. If the acute non-ammonia effluent toxicity is two (2.0) TUa or greater, Sauget shall initiate and complete the ETSIS in accordance with the following schedule (all time periods extend from the effective date of this requirement, which is two (2) years after entry of this Consent Decree): *[Continued on page 30]*

**Note:**  
**This block**  
**intentionally**  
**left blank**

Action Required	Time Frame
a. Notify IEPA and U.S. EPA whether non-ammonia effluent toxicity is two (2.0) TUa or greater	1 month
b. Submit ETSIS Study Design to IEPA and U.S. EPA (if required under the terms of this Consent Decree)	5 months
c. Initiate Stage I of ETSIS	6 months
d. Report Results of Stage I and submit plan for Stage II (if required under the terms of this Consent Decree) to IEPA and U.S. EPA	12 months
e. Initiate Stage II of ETSIS (if required under the terms of this Consent Decree)	14 months
f. Report Results of Stage II (if required under the terms of this Consent Decree) and submit plan for Stage III to IEPA and U.S. EPA	21 months
g. Initiate Stage III of ETSIS (if required under the terms of this Consent Decree)	23 months
h. Report results of Stage III to IEPA and U.S. EPA	29 months

44. Stage I of the ETSIS shall include, at a minimum, a complete analysis of all toxicity testing (acute, chronic, and bioconcentration) and chemical monitoring results to date, aimed at correlating toxicity with specific chemicals or families of chemicals. If the available data lead to the identification of one or more causative agents for the remaining acute, non-ammonia toxicity, the study shall continue with identification of the industrial user(s) ("IU(s)") that is (are) the source(s) of the agent(s), through chemical analysis of discharges and/or process evaluation techniques. If this source identification effort is successful, the remainder of Stage I, as described in Paragraph 46, and Stages II and III of

the study need not be implemented, and Sauget shall take action pursuant to Paragraph 47 below.

45. Notwithstanding Paragraphs 41 and 42 of this Consent Decree, Sauget shall evaluate the results of the ABRTF final effluent monitoring specified in Subsection IV.J. of this Consent Decree for chlorobenzene and 4-nitrophenol for a period of one (1) year beginning thirty (30) days after the date of entry of this Consent Decree. If the levels of these pollutants in the ABRTF discharge do not exceed the chronic water quality criteria listed below (the "criteria"), then Sauget shall report this finding to IEPA and U.S. EPA not later than the schedule in Subparagraph 43.a. of this Subsection IV.M., and no further action to meet the criteria is necessary. If the levels of these pollutants in the ABRTF discharge exceed the criteria, then Sauget may apply to the IEPA for a mixing zone allowance determination pursuant to 35 Ill. Adm. Code 302.102 and 304.102. In any event, not later than January 4, 1994, Sauget shall have demonstrated that the discharge from the ABRTF will not cause the criteria set forth below to be violated:

Pollutant	Water Quality Criterion
Chlorobenzene	40 $\mu\text{g/l}$ (ppb)
4-Nitrophenol	1740 $\mu\text{g/l}$ (ppb)

46. If that portion of Stage I of the ETSIS described in Paragraph 44 is not successful in identifying the causative agent(s) and the source IU(s) of the remaining non-

ammonia toxicity in the ABRTF effluent, then Sauget shall be required to prepare a Study Design for, and to perform, the remainder of the ETSIS. The ETSIS shall be designed to identify the causative agent(s) and the source(s) of the remaining non-ammonia toxicity in the ABRTF effluent. Sauget shall design the ETSIS according to guidance provided in the U.S. EPA documents, "Methods for Aquatic Toxicity Identification Evaluations" ("TIE") (Phases I, II, and III EPA-600/3-88/034, 5, and 6; dated September, 1988, February, 1989, and February, 1989, respectively) and "Toxicity Reduction Evaluations for Municipal Wastewater Treatment Plants" ("TRE") (EPA-600/2-88/062; dated April, 1989). Sauget shall perform the ETSIS in accordance with the terms of Subparagraphs 46.a. through 46.d., below

a. Initially, TIE Phase I tests in Stage I shall include, at a minimum, three (3) twenty-four (24) hour composite samples of ABRTF final effluent prior to chlorination to characterize the potential causes and variability of the non-ammonia toxicity. These tests shall be performed on samples which have undergone the zeolite test to remove ammonia toxicity as described in Paragraph 4 of Attachment E to this Consent Decree.

b. Sauget shall submit to IEPA and U.S. EPA a report of the TIE Phase I test results and a plan for Stage II of the ETSIS in accordance with Paragraph 43 of this Consent Decree. The plan for Stage II shall include TIE Phase II analyses, or alternate tests as described in the Municipal TRE protocol, including the evaluation of sources of non-ammonia toxicity and/or the evaluation of the treatability of the non-ammonia toxicity

c. Sauget shall initiate Stage II of the ETSIS within sixty (60) days of the completion of the TIE Phase I tests. ETSIS Stage II shall determine the identity of the non-ammonia toxicity or, alternatively, the potential sources of the non-ammonia toxicity and the treatability of the non-ammonia toxicity. Sauget shall provide a report of the Stage II results to IEPA and U.S. EPA. The Stage II report shall include a plan for ETSIS Stage III including confirmation of the cause(s) and source(s) of the non-ammonia toxicants or toxicity and/or the selection of the alternatives for non-ammonia toxicity treatment.

d. Sauget shall initiate Stage III of the ETSIS within sixty (60) days of the completion of Stage II. Sauget shall provide a report of the Stage III results which documents the confirmation of the non-ammonia toxicants or, alternatively, the sources of the non-ammonia toxicity and the potential methods for treatment of the non-ammonia toxicity at the ABRTF.

47. Within six (6) months of Sauget's identification of the causative agent(s) and its (their) IU source(s) under Stage I or Stage II, Sauget shall submit to U.S. EPA and IEPA for approval an Effluent Toxicity Source Reduction Action Plan ("ETSRAP") that identifies appropriate steps on an expeditious schedule to reduce or eliminate the discharge of such causative agent(s). Sauget shall begin implementation of the ETSRAP within sixty (60) days of approval by U.S. EPA and IEPA. In the event that Sauget diligently completes the actions specified in Paragraphs 43, 44, and 46 of this Subsection IV.M., and a causative agent cannot be identified, then Sauget shall confirm these findings in the ETSIS report to the IEPA and U.S. EPA.

**N. PRETREATMENT PROGRAM**

48. Sauget shall perform the following activities, consistent with its approved Pretreatment Program, commencing no later than the date this Consent Decree is entered with the Court, unless otherwise specified below:

a. Ammonia Nitrogen Local Limits

i. Within 60 days of entry of this Consent Decree, Sauget shall officially enact, as part of its pretreatment ordinance, pursuant to 40 CFR 403.5(c), ammonia nitrogen local limits applicable to Monsanto Chemical Company ("Monsanto"), Harcros Pigments Inc., ("Harcros"), and Trade Waste Incineration ("Trade Waste"). These local limits shall apply as average monthly discharge limitations (as defined at 40 CFR 122.2), requiring each of the above IUs to control the amount of ammonia nitrogen in its discharge:

*[Continued on page 35]*

**Note:  
This block  
intentionally  
left blank**

**AVERAGE MONTHLY DISCHARGE LIMITATIONS FOR NH<sub>3</sub>-N**

IU	lbs/day	Compliance Date
Monsanto	8,700 4,300 1,000	Immediately 1.5 Years from Date of Lodging 4.5 Years from Date of Lodging*
Farcross	16,000 1,250	Immediately 3 Years from Date of Lodging
Trade Waste	200 40	Immediately 3 Years from Date of Lodging

ii. Commencing within 60 days of entry of this Consent Decree, all other industrial users shall be prohibited from exceeding an ammonia nitrogen concentration (as N) in their discharges to the ABRTF of 50 mg/l in a 24-hour composite sample or 75 mg/l in a grab sample.

b. Application of Pretreatment Standards

i. Modify the permits for Cerro Copper and Big River Zinc to eliminate compliance schedules.

---

\*If the period between the dates of lodging and entry of this Consent Decree should exceed one hundred eighty (180) days, as a result, at least in part, of disputed issues relating to the ammonia nitrogen controls required by this Consent Decree, then Monsanto's duty to proceed with the ammonia nitrogen reduction program for the ACL process shall be suspended until this Consent Decree is entered, and the final compliance date for Monsanto shall be extended by an amount of time equal to the number of days such period between lodging and entry exceeded one hundred eighty (180) days.



ii. Modify the permit for Monsanto to incorporate the following local limits for ammonia nitrogen, consistent with Subparagraph 48.a.i., above, within 90 days of entry of this Consent Decree:

Average Monthly Discharge Limitation for NH <sub>3</sub> -N	Local Limit Compliance Date
8,700 lbs/day	Immediately
4,300 lbs/day	1.5 Years from Date of Lodging
1,000 lbs/day	4.5 Years from Date of Lodging*

iii. Modify the permit for Harsco to incorporate the following local limits for ammonia nitrogen, consistent with Subparagraph 48.a.i., above, within 90 days of entry of this Consent Decree. *[Continued on page 37]*

**Note:**  
This block  
intentionally  
left blank

\*If the period between the dates of lodging and entry of this Consent Decree should exceed one hundred eighty (180) days, as a result, at least in part of disputed issues relating to the ammonia nitrogen controls required by this Consent Decree, then Monsanto's duty to proceed with the ammonia nitrogen reduction program for the ACL process shall be suspended until this Consent Decree is entered, and the final compliance date for Monsanto shall be extended by an amount of time equal to the number of days such period between lodging and entry exceeded one hundred eighty (180) days.

Average Monthly Discharge Limitation for NH <sub>3</sub> -N	Local Limit Compliance Date
16,000 lbs/day	Immediately
1,250 lbs/day	3 Years from Date of Lodging

iv. Modify the permit for Trade Waste to incorporate the local limit, consistent with Subparagraph 48.a.i., and a compliance schedule for ammonia nitrogen, within 90 days of entry of this Consent Decree.

v. Modify the permits for Ethyl Petroleum and LanChem to include mass-based limits for the parameters regulated by 40 CFR 414.

c. Enforcement

i. Establish compliance schedules in enforcement orders for Cerro Copper and Big River Zinc, to remedy violations of categorical standards.

ii. Sauget shall monitor and enforce Monsanto's, Harsco's, and Trade Waste's compliance with their respective local limits for ammonia nitrogen pursuant to its approved Pretreatment Program.

iii. Until IEPA determines that Sauget has demonstrated compliance with the color requirements at 35 Ill. Adm. Code 302.203 and 304.106 or Sauget is granted permanent relief by the Illinois Pollution Control Board ("Board") from such requirements, Sauget shall continue to monitor and enforce Monsanto's program "for identifying the principal causes of

remaining color in the ABRTF effluent, and assessing possible controls," as specified at page 6 of the January 24, 1991, Opinion and Order of the Board (PCB 90-181). Sauget shall submit to U.S. EPA and IEPA, as part of the Quarterly Consent Decree Report required under Section VII of this Consent Decree, quarterly supplemental progress reports on said program. Each quarterly report shall contain available sampling results and, to the extent reasonably feasible at the time of reporting, an assessment of the effectiveness and implementability of any further color controls identified as a result of this program.

49. In the quarterly report required under Section VII of this Consent Decree, Sauget shall certify in writing, pursuant to 40 CFR 403.12(k), that it has complied with Subparagraphs 48.a., 48.b., and 48.c. of this Consent Decree. In each such certification, Sauget shall state when it achieved compliance with the requirements in each subparagraph.

50. Sauget shall modify its pretreatment program to incorporate any changes adopted pursuant to this Consent Decree, and/or any new Federal or State laws or regulations established since the program was approved, in particular the regulations promulgated on July 24, 1990, found at 55 Fed. Reg. 30082. Sauget shall, within ninety (90) days of entry of this Consent Decree, submit this modified program proposal to both U.S. EPA and IEPA for approval. In modifying its program, Sauget shall comply with the modification procedures found at 40 CFR 403.18.

**V. PRETREATMENT PROGRAM OBSERVER**

51. IEPA shall contract with a consultant to independently observe and monitor the implementation of the Village of Sauget's Pretreatment Program (the "pretreatment observer"). IEPA shall notify the parties of the identity of this pretreatment observer within ten (10) days of contracting and shall simultaneously provide Sauget with an executed copy of the contract. This independent monitoring shall extend for a minimum of one year from the date of such notice, subject to extension as provided below.

52. To fund implementation of this monitoring program, Sauget agrees to pay to the State of Illinois, Environmental Protection Trust Fund, the sum of \$50,000 per year payable in two (2) equal semi-annual installments no more than 180 days apart. The first payment shall be made within thirty (30) days of entry of this Consent Decree. Any subsequent semi-annual payments for subsequent years, if applicable, shall be made beginning on the anniversary date of the first payment. Each payment shall be made by certified or cashier's check payable to the "Treasurer, State of Illinois, Environmental Protection Trust Fund," and submitted to:

Manager, Fiscal Services Section  
Illinois Environmental Protection Agency  
P.O. Box 19276  
Springfield, Illinois 62794-9276

The name and docket number of this civil action and the Village's FEIN number shall appear on the check. Interest on any amount unpaid after the due date shall accrue according to Illinois law. These funds may be used only to provide the pretreatment monitoring measures set forth in Paragraph 53, below.

53. The parties agree that the pretreatment observer shall have the authority to, and shall, perform the following activities:

a. Audit implementation of Sauget's Pretreatment Program. The observer shall have the authority to enter the ABRTF and P/C Plant to collect samples and to inspect plant operation, data collection, and monitoring and controls. On-site inspections may occur during any shift, on any day, and without advance notice, except that twenty-four (24) hour advance notice shall be provided prior to inspections on Saturdays, Sundays, or between the hours of 5:00 p.m. and 8:00 a.m. Except for financial records and privileged documents, the observer shall have free access to all areas, equipment, and records, related to the implementation of the Sauget Pretreatment Program.

b. Collect wastewater for analysis for chemical constituents or toxic effects, including any biomonitoring or bioconcentration studies. The pretreatment observer shall be authorized to review the quality control and quality assurance procedures followed by Sauget in monitoring and testing of industrial users, and shall be authorized, upon prior request, to take splits of samples for analysis.

c. Monitor industrial user compliance with pretreatment program and regulatory requirements, including the establishment and enforcement of pretreatment local limits.

d. Monitor the operation and maintenance of pretreatment facilities at tributary industrial users.

e. Prepare periodic evaluation reports for the IEPA, Illinois Attorney General, and U.S. EPA, Region 5, on the performance of Sauget in implementing its Pretreatment Program. A copy of each such report shall simultaneously be provided to Sauget.

54. Sauget shall have the right to split samples collected by the pretreatment observer and shall be informed of all tests, including the purpose(s) thereof, to be conducted.

55. The parties further agree that the pretreatment observer shall not be authorized, whether solicited or not, to provide to Sauget any instructions or advice, or any approval or disapproval of actions by Sauget, or to influence, either by word or action, operations at the ABRTF, the P C Plant, or any Industrial User.

56. A copy of any correspondence between Sauget and the observer, which pertains to the implementation of this Section V, shall be sent simultaneously by the originator to the U.S. EPA at the addresses noted in Section XVII of this Consent Decree.

57. In accordance with 40 CFR Part 2, the pretreatment observer retained by IEPA under this provision shall agree in writing not to disclose to anyone except authorized representatives of the IEPA, the Illinois Attorney General, U.S. EPA, or U.S. Department of Justice, any trade secrets or other confidential business information obtained under this provision.

58. IEPA shall perform the actual hiring or assignment of the pretreatment observer and shall be responsible, using the funds specified in Paragraph 52, for providing salary, benefits and all equipment, supplies, and office space necessary to perform the functions designated in Paragraph 53. The pretreatment observer shall not be deemed to be an employee, agent, or independent contractor of Sauget for any purpose whatsoever. IEPA shall notify all parties to this Consent Decree ten (10) days in advance of the execution of any contracts pursuant to this provision.

59. The monitoring authority provided for in this Section V may be extended for up to two (2) additional one-year periods, if reasonably requested by IEPA, the Illinois Attorney General, or U.S. EPA under the same conditions set forth in this Section V.

60. Nothing contained in this Section V shall reduce or modify U.S. EPA's or IEPA's authority under any regulation, statute, or this Consent Decree to monitor, audit, inspect, or enforce Sauget's implementation of its pretreatment program, Sauget's compliance with this Consent Decree, or Sauget's compliance with the Act.

#### **VI. NPDES PERMIT REISSUANCE**

61. On May 1, 1996, or earlier if agreed to by the parties, Sauget shall submit to IEPA and U.S. EPA an application for reissuance of its NPDES permit, along with supporting documentation, for discharge from its ABRTF. Such application shall include, as appropriate, data acquired under the provisions of this Consent Decree and all information required under applicable federal regulations, including the regulations promulgated on July 24, 1990, found at 55 Fed. Reg. 30082.

62. The plaintiffs agree that a draft reissued NPDES permit for the ABRTF shall be public noticed by no later than November 1, 1996.

## **VII. REPORTING REQUIREMENTS**

63. After this Consent Decree is entered, and until it is terminated in accordance with Section XXIV, Sauget shall submit to U.S. EPA and IEPA a written report for each calendar quarter, to be called the "Quarterly Consent Decree Report." The Quarterly Consent Decree Report shall include the following information:

- a. the deadlines and other requirements of this Consent Decree which Sauget was required to meet in the past quarter, and whether Sauget met the deadlines and requirements;
- b. if a deadline or requirement was not met, an explanation of the reasons therefor and a schedule setting forth the expected date(s) of compliance;
- c. as to Subsection IV.A. of this Consent Decree
  - i. the amount of carbon, in pounds per day, added to the secondary waste stream, for each day during the quarter;
  - ii. the amount of wastewater processed, in million gallons per day, in the secondary waste stream, for each day during the quarter;
  - iii. the MCRT for each day in the quarter, explanations, to the extent known by Sauget, for an MCRT of less than 20 days, including efforts to return to the 20-day target MCRT; and
  - iv. the type of carbon used during the quarter;
- d. the results of any toxicity tests specified in Subsection IV.F, chemical analyses specified in Subsection IV.J., and chronic toxicity testing specified in Subsection IV.K. conducted during the quarter; and



e. the results of the bioconcentration study, as specified in Subsection IV.L., and the certification of compliance with Subparagraphs 48.a., b., and c., as specified in Subsection IV.N.

64. If the results of tests conducted during a quarter are not received before the fifteenth (15th) day of the month the quarterly report is due, such results shall be incorporated into the next quarterly report, with a notation that they are results obtained from samples taken during the previous quarter.

65. Sauget shall deliver the Quarterly Consent Decree Reports by the thirtieth (30th) day of April, July, October, and January for the previous calendar quarters ending on the last day of March, June, September, and December, respectively.

66. Sauget shall ensure that each report submitted pursuant to this Consent Decree is signed by a duly authorized representative of Sauget having knowledge of the report's contents. Sauget shall not object to the admissibility in evidence of any such report in any civil proceeding to enforce this Consent Decree.

67. Effluent information which Sauget is required to collect and report under Subsections IV.C. and IV.G. of this Consent Decree shall be submitted to U.S. EPA and IEPA on a monthly basis, no later than the last day of the following month.

68. All written reports, notices, and submissions required by this Consent Decree shall be submitted to U.S. EPA and IEPA at the addresses specified in Section XVII of this Consent Decree.

### **VIII. STIPULATED PENALTIES**

69. If Sauget fails to comply with a requirement of this Consent Decree, then, upon written demand from the Plaintiffs, Sauget shall be liable to pay the stipulated penalties set forth below (unless excused by Section XI (Force Majeure provisions)):

70. If Sauget fails to add carbon as required by Paragraph 10 of Subsection IV.A. of this Consent Decree, Sauget shall pay a stipulated penalty of \$2,000 per day for each day of violation.

71. If Sauget fails to fully meet any milestone or complete any activity required under Paragraph 21 of Subsection IV.E. or under Subsection IV.M. of this Consent Decree by the dates or within the time frames specified therein, then Sauget shall be liable to pay stipulated penalties as follows:

a. \$500 per day, per violation, for the first 15 days of violation of a particular milestone or activity;

b. \$750 per day, per violation, for days 16 through 45 of violation of a particular milestone or activity;

c. \$1,000 per day, per violation, for days 46 through 90 of a particular milestone or activity;

d. \$2,000 per day, per violation, for each day of violations beyond the 90th day of a particular milestone or activity.

72. If Sauget fails to comply with any effluent limit as required by Subsection IV.C. (and specified in Attachment C to this Consent Decree), then Sauget shall be liable to pay stipulated penalties as follows:

a. for violations of any maximum daily discharge limitations:

i. \$750 per day per parameter for the first 15 days in which the limit for that parameter is violated;

ii. \$1,000 per day per parameter for days 16 through 30 in which the limit for that parameter is violated;

iii. \$2,000 per day per parameter for days 31 through 60 in which the limit for that parameter is violated;

iv. \$4,000 per day per parameter for each day of violation beyond the 60th day in which the limit for that parameter is violated;

b. for violations of any average weekly discharge limitation: \$5,000 per week per parameter for each week in which the limit for that parameter is violated;

c. for violations of any average monthly discharge limitation:

i. \$7,500 per month per parameter for the first 3 months in which the limit for that parameter is violated;

ii. \$15,000 per month per parameter for each month beyond the first 3 in which the limit for that parameter is violated.

73. If Sauget violates the applicable interim whole effluent toxicity limit defined in Paragraph 22 of Subsection IV.F of this Consent Decree, Sauget shall be liable to pay stipulated penalties as follows:

- a. \$3,000 per violation for the first 5 violations;
- b. \$6,000 per violation for violations 6 through 10;
- c. \$12,000 per violation for each subsequent violation.

d. From and after the date upon which a new current WET limit takes effect in accordance with Paragraph 20 of this Consent Decree, if the new current WET limit is lower (i.e., more stringent) than the previous current WET limit, counting of violations and liability for stipulated penalties shall begin again de novo at Subparagraph 73.a., above.

*[Continued on page 48]*

**Note:**  
This block  
intentionally  
left blank

74. If Sauget violates any interim ammonia nitrogen effluent limit specified in Subparagraph 26.a. of Subsection IV.G. of this Consent Decree, Sauget shall be liable to pay stipulated penalties as follows:

- a. \$5,000 per violation for the first 3 average monthly discharge limitation violations;
- b. \$7,500 per violation for violations 4 through 7 of the average monthly discharge limitations;

- c. \$15,000 per violation for violations beyond 7 of the average monthly discharge limitations.

- d. Excursions above the interim ammonia nitrogen limits occurring during the month of May in any year that this Consent Decree is in effect shall not be deemed violations of this Consent Decree and shall not be subject to the stipulated penalties contained in this Paragraph 74 if:

- i. the discharge levels do not exceed the limits established in Subparagraph 26.a. for the most recent prior winter, and

- ii. the average daily temperature of the influent to the secondary treatment process of the ABRTF for the immediately preceding months of March and April did not exceed 55°F (12.8°C).

- e. From and after the date upon which a new winter ammonia nitrogen effluent limit takes effect in accordance with Subparagraph 26.a. of this Consent Decree, counting of violations and liability for stipulated penalties shall begin again de novo at Subparagraph 74.a., above.

75. For all effluent limit violations (exceedances) covered by Paragraphs 72 and 74 above:

a. when both mass-based and concentration-based effluent limits are exceeded, stipulated penalties shall be due for both types of exceedances;

b. a "single operational upset," within the meaning of §§ 309(c)(5), (d), and (g)(3) of the Act, which leads to simultaneous violations of more than one pollutant parameter, shall be treated as a single violation.

76. If Sauget violates any of the requirements of Subsection IV.N. of this Consent Decree that are specified below, Sauget shall be liable to pay stipulated penalties as follows:

a. A penalty of \$10,000 per day if Sauget fails to comply with the requirement of Subparagraph 48.a.(i) to enact local limits for Monsanto and Harcros;

b. A penalty of \$2,000 per day for each day Sauget is late in performing an action or issuing a modification required under Subparagraphs 48.b.(ii) and (iii) and 48.c.(ii) of this Consent Decree.

77. If Sauget fails to conduct any sampling, monitoring, and/or testing as required by Subsection IV.C. (and specified in Attachment C to this Consent Decree), Paragraph 25 of Subsection IV.F., or Subparagraph 26.b. of Subsection IV.G. (ammonia nitrogen testing only), such failure shall be counted as an effluent limit violation, for the parameter not sampled, monitored, and/or tested, for the purposes of assessing stipulated penalties.

78. If Sauget fails to conduct any sampling, monitoring, and/or testing as required by Subparagraph 26.b. of Subsection IV.G. (total kjeldahl nitrogen only), then Sauget shall be liable to pay stipulated penalties as follows:

- a. \$500 per monitoring or testing requirement for each of the first 20 violations;
- b. \$3,000 per monitoring or testing requirement for each violation thereafter.

79. If Sauget fails to conduct any sampling, monitoring, and/or testing as required by Paragraph 32 of Subsection IV.J. or Paragraphs 33 and 34 of Subsection IV.K., then Sauget shall be liable to pay stipulated penalties of \$1,500 per sampling, monitoring, and/or testing requirement for each violation.

80. If Sauget fails to timely comply with any reporting requirement as required in Paragraph 29 of Subsection IV.H. ("Diffuser Performance Study") or Subparagraph 3 .c. of Subsection IV.I. ("Biological Study") or in Section VII of this Consent Decree, Sauget shall pay stipulated penalties as follows

- a. \$150 per day per reporting requirement for the first 30 days that the reporting requirement is violated;
- b. \$450 per day per reporting requirement for each day thereafter that the reporting requirement is violated.

81. Days of violation or violations need not necessarily be consecutive for the purposes of applying the graduated stipulated penalties specified in Paragraphs 71, 72, 73, 74, 77, and 78, above.

82. Within thirty (30) days of its receipt of a written demand from the Plaintiffs stating the violation and the amount owed, Sauget shall pay stipulated penalties by certified or cashier's checks as follows:

a. Sixty (60) percent of the amount owed, made payable to "Treasurer, United States of America," and delivered to the United States Attorney, Southern District of Illinois, Room 330, 750 Missouri Avenue, East St. Louis, Illinois 62201, and

b. Forty (40) percent of the amount owed, made payable to "Treasurer, State of Illinois, Environmental Protection Trust Fund," and delivered to the Manager, Fiscal Services Section, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, Illinois 62794-9276.

c. The name and docket number of this civil action and the Village's FEIN number shall appear on the checks. Sauget shall send copies of the checks to the Plaintiff addressees specified in Section XVII of this Decree. Upon receipt of a written demand from the Plaintiffs for stipulated penalties, Sauget may invoke Dispute Resolution under Section XIV of this Consent Decree.

83. Stipulated penalties are not the Plaintiffs' exclusive remedy for violations of this Consent Decree. The Plaintiffs expressly reserve the right to seek all other relief to which they are entitled. If the Plaintiffs demand a stipulated penalty from Sauget for a violation of this Consent Decree, and Sauget timely pays such stipulated penalty, then the stipulated penalty shall be the Plaintiffs' exclusive civil monetary remedy for such violation of this Consent Decree, the applicable terms of the NPDES Permit, and the Act.



**IX. CIVIL PENALTY**

84. Sauget shall pay a civil penalty in the amount of \$750,000 in full satisfaction of the Plaintiffs' claims for violations as alleged in the Second Amended Complaint filed on August 1, 1990, through the date of lodging of this Consent Decree. Payment shall be made within thirty (30) days after the entry of this Consent Decree, by ~~certified~~ or cashier's checks as follows:

a. \$480,000 payable to the "Treasurer, United States of America," and delivered to the United States Attorney, Southern District of Illinois, Room 330, 750 Missouri Avenue, East St. Louis, Illinois 62201, and

b. \$270,000 payable to the "Treasurer, State of Illinois, Environmental Protection Trust Fund," and delivered to the Manager, Fiscal Services Section, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, Illinois 62794-9276.

c. The name and docket number of this civil action and the Village's FEIN number shall appear on the checks. Sauget shall send copies of the transmittal letters and checks to the Plaintiff addressees specified in Section XVII of this Consent Decree.

**X. LATE PAYMENT CHARGE**

85. a. Sauget shall pay interest to the United States, at the rate established by the Secretary of the Treasury pursuant to 31 U.S.C. § 3717, for any delinquent payment of the portion of a civil or stipulated penalty due to the United States. In addition, after the first thirty (30) days that any amount of a penalty is overdue to the United States, Sauget shall pay to the United States a late payment handling charge of Twenty Dollars (\$20.00). and an

additional charge of Ten Dollars (\$10.00) for each and every subsequent thirty (30) day period for which any monies are overdue to the United States.

b. Sauget shall pay interest to the State of Illinois, in accordance with Illinois law, for any delinquent payment of the portion of a civil or stipulated penalty due to the State of Illinois.

**XI. DELAYS OR IMPEDIMENTS TO COMPLIANCE ("Force Majeure")**

86. If an event occurs which causes or may cause Sauget to fail to fully and timely comply with any requirement or obligation of this Consent Decree, Sauget shall notify in writing the Court and all parties within fourteen (14) days of when Sauget first learns of the event or should have known of the event by the exercise of due diligence. In this notice Sauget shall specifically reference this Section XI of this Consent Decree, and shall describe, in the degree of detail known to Sauget at that time, after reasonable inquiry into the matter, the anticipated length of time the delay or impediment to performance may persist, the known cause or causes of the delay or impediment to performance, and the measures taken or to be taken by Sauget to prevent or minimize the delay or impediment to performance and any future delays or impediments to performance. Sauget shall take all reasonable steps to avoid and minimize such delays or impediments to performance.

87. Failure by Sauget to timely comply with the notice requirement of this Section XI as specified above shall render this Section XI void and of no effect as to the particular event involved, and shall constitute a waiver of Sauget's right to request an extension of time for its obligations under this Section XI based upon such event.

88. U.S. EPA and/or IEPA shall notify Sauget in writing of their agreement or disagreement with Sauget's claim of a delay or impediment to performance within twenty-one (21) days of receipt of Sauget's notice provided under this Section XI. If U.S. EPA and IEPA agree that the delay or impediment to performance has been or will be caused by circumstances beyond Sauget's control, or that of any entity controlled by Sauget, and that Sauget could not have foreseen and prevented such delay or impediment to performance by the exercise of due diligence, the parties shall stipulate to an extension of the particular compliance requirement affected by the delay, by a period not exceeding the delay actually caused by such circumstances. Such a stipulation shall be filed as a modification of this Consent Decree pursuant to the Modification procedures established in this Decree. Sauget shall not be liable for stipulated penalties for the period of such delay.

89. If U.S. EPA and/or IEPA do not agree with Sauget's claim of a delay or impediment to performance, then U.S. EPA and/or IEPA shall state the basis for its disagreement within twenty-one (21) days of receipt of Sauget's notice provided under this Section XI. If U.S. EPA and/or IEPA do not respond within twenty-one (21) days of receipt of Sauget's notice provided under this Section XI, U.S. EPA and IEPA will be deemed to have disagreed with Sauget's claim, and Sauget may proceed under this Paragraph 89. Sauget may then submit the matter to the Court for resolution pursuant to the Dispute Resolution Procedures established in this Decree. If Sauget submits the matter to the Court for resolution, and the Court determines that the delay or impediment to performance has been or will be caused by circumstances beyond the control of Sauget or any entity controlled by Sauget, and that Sauget could not have foreseen and prevented such delay or

impediment to performance by the exercise of due diligence, Sauget shall be excused from the imposition of stipulated penalties as to that delay or impediment to performance, but only for the period of time the delay or impediment to performance continues due to such circumstances.

90. Sauget shall bear the burden of proving that any delay or impediment to performance of any requirement of this Consent Decree was caused or will be caused by circumstances beyond the control of Sauget or any entity controlled by Sauget, and that Sauget could not have foreseen and prevented such delay or impediment to performance by the exercise of due diligence. Also, Sauget shall bear the burden of proving that the length and extent of any delay was attributable to such circumstances. An extension of one compliance date based upon a particular event does not necessarily result in an extension of a subsequent compliance date or dates. Sauget must make an individual showing of proof regarding each delayed incremental step, or other requirement for which an extension is sought.

91. Unanticipated or increased costs or expenses associated with the implementation of this Consent Decree, changed financial circumstances, or discharges of organic nitrogen into the P/C Plant or ABRTF shall not serve as a basis for requesting an extension of time or other changes to this Consent Decree.

## **XII. UPSETS**

92. For the purposes of Subsections IV.C. and IV.F. of this Consent Decree, if Sauget can demonstrate that an "upset" has occurred, within the meaning of 40 CFR

122.41(n), which "upset" causes exceedances of one or more effluent limits established under Subsection IV.C. or IV.F., those exceedances shall be excused.

### **XIII. FAILURE OF COMPLIANCE**

93. The United States and the State of Illinois do not, by their consent to the entry of this Consent Decree, warrant or aver in any manner that Sauget's complete compliance with the actions and/or improvements required under this Consent Decree will result in compliance with the Act or effluent limits in this Consent Decree. Notwithstanding U.S. EPA's or IEPA's review and approval of any plans, Sauget shall remain solely responsible for compliance with the terms of this Consent Decree and the Act.

### **XIV. DISPUTE RESOLUTION**

94. Any dispute arising under or with respect to this Consent Decree shall in the first instance be the subject of informal negotiations between or among the parties to the dispute for a period of up to fifteen (15) working days from the time notice of the existence of the dispute is given. Both Plaintiffs shall automatically be considered parties to any such dispute. The period for negotiations may be extended by agreement of the parties to the dispute.

95. If a dispute between Plaintiffs and Sauget cannot be resolved by informal negotiations under Paragraph 94, above, then the position advanced by Plaintiffs shall be considered binding unless, within fifteen (15) days after the end of the informal negotiations period, Sauget files a petition with this Court setting forth the matter in dispute, the efforts

made by the parties to resolve it, and its proposed resolution. Plaintiffs shall have twenty (20) days to file a response to Sauget's petition with an alternative proposal for resolution of the dispute. In proceedings on any dispute under this Paragraph 95, Sauget shall have the burden of showing that its proposal meets the requirements of this Consent Decree and the Act.

96. The filing of a petition asking the Court to resolve a dispute shall not of itself extend or postpone any obligation of Sauget under this Consent Decree, but the payment of stipulated penalties with respect to the disputed matter shall be stayed pending resolution of the dispute. To the extent Sauget shows that a delay or other noncompliance was due to a force majeure event or otherwise prevails on the disputed issue, stipulated penalties shall be excused.

#### **XV. RIGHT OF ENTRY**

97. U.S. EPA and the IEPA, and/or their employees, contractors, consultants, and attorneys shall have the authority to enter the ABRTF and/or the P/C Plant, during reasonable hours, upon presentation of credentials to the manager(s) of the ABRTF and/or the P/C Plant, or, in the manager's absence, to the highest ranking employee present on the premises, for the purposes of:

- a. monitoring the progress of activities required by this Consent Decree;
- b. verifying any data or information submitted to the Plaintiffs in accordance with the terms of this Consent Decree;
- c. obtaining samples and, upon request, splits of any samples taken, for the purposes of determining compliance with this Consent Decree, by Sauget or its contractors and consultants; or
- d. assessing Sauget's compliance with this Consent Decree.

This provision in no way affects or reduces any rights of entry or inspection that the United States or the State of Illinois has under any applicable Federal or State law or regulation. Upon request, the Plaintiffs shall supply Sauget with splits of any samples it takes pursuant to Subparagraph 97.c., above, and a list of the tests and analyses to be performed on any such samples. *[Continued on page 59]*

Note:  
This block  
intentionally  
left blank

## **XVI. FUNDING**

98. Performance of the terms of this Consent Decree by Sauget is not conditioned on the receipt of any Federal or State grants. In addition, Sauget's performance is not excused by the failure to obtain, or the shortfall of, any Federal or State grant funds, or by the delay from processing of any applications for the same.

## **XVII. FORM OF NOTICE**

99. Written notifications, reports, or other communications under the terms of this Consent Decree among or between the United States, U.S. EPA, IEPA, the State of Illinois, or Sauget shall be deemed submitted on the date they are postmarked and sent by certified or express mail, with a return receipt provided. Except as specified otherwise herein when written notification or communication is required by any party to this Consent Decree, it shall be addressed as follows:

### **As to the United States:**

Chief, Environmental Enforcement Section  
Environment and Natural Resources Division  
U.S. Department of Justice

#### **For U.S. Postal Service:**

Post Office Box 7611  
Ben Franklin Station  
Washington, D.C. 20044

#### **For express mail service:**

10th Street & Pennsylvania Avenue, N.W.  
Washington, D.C. 20530

Reference: Case No. 90-5-1-1-3036



As to the U.S. EPA:

Chief, Compliance Section (5WCC-TUB-8)  
Water Division  
U.S. EPA, Region 5  
230 South Dearborn Street  
Chicago, Illinois 60604

- and -

Office of Regional Counsel (5CA-TUB-3)  
Air, Water, Toxics and General Law Branch  
U.S. EPA, Region 5  
230 South Dearborn Street  
Chicago, Illinois 60604

As to the State of Illinois:

Office of the Attorney General  
Environmental Control Division  
500 South Second Street  
Springfield, Illinois 62706

As to the IEPA:

Compliance Assurance Section  
Division of Water Pollution Control  
Illinois Environmental Protection Agency  
For U.S. Postal Service:  
P.O. Box 19276  
Springfield, Illinois 62794-9276  
For express mail service:  
2200 Churchill Road  
Springfield, Illinois 62706

As to the Village of Sauget:

General Manager  
Sauget Sanitary Development and Research  
Association  
One American Bottoms Road  
Sauget, Illinois 62201

- and -

Village Attorney for the Village of Sauget  
c/o Baker & Hayes  
Attorneys at Law  
7012 West Main Street  
Belleville, Illinois 62223

100. When telephone notification is required by the terms of this Consent Decree, it shall be accomplished by contacting the following persons at the telephone numbers listed below:

As to the U.S. EPA:

James Filippini, SWCC-TUB-8  
United States Environmental Protection Agency  
230 South Dearborn Street  
Chicago, Illinois 60604  
(312) 886-6743

As to the IEPA:

Robert Schleuger  
Illinois Environmental Protection Agency  
2009 Mall Street  
Collinsville, Illinois 62234  
(618) 346-5120

As to the Village of Sauget:

George R. Schillinger, General Manager  
Sauget Sanitary Development and Research  
Association  
One American Bottoms Road  
Sauget, Illinois 62201  
(618) 337-1710

**XVIII. PERMIT OBLIGATIONS**

101. This Consent Decree does not constitute authorization or approval of the construction of any physical structure or facilities, or the modification of any existing treatment works or sewer system. Approval for any such construction or modification shall be by permit issued by IEPA or U.S. EPA, or by such other permit as may be required by applicable Federal, State, or county laws, rules or regulations.

102. This Consent Decree is not and shall not be interpreted to be a permit or a modification of any existing permit issued pursuant to Section 402 of the Clean Water Act, 33 U.S.C. § 1342. This Consent Decree does not relieve Sauget of any obligation to apply for, obtain or comply with the requirements of any reissued NPDES permit, or to comply with any other Federal, State, or local law or regulation.

103. Except as otherwise provided in Section XXIV of this Consent Decree, the pendency or outcome of any proceeding concerning the issuance, reissuance, or modification of an NPDES permit shall neither affect nor postpone Sauget's duties and liabilities as set forth in this Consent Decree.

### **XIX. NON-WAIVER PROVISIONS**

104. This Consent Decree does not limit or affect the rights of Sauget, the State of Illinois, the United States, or U.S. EPA as against third parties. The parties to this Consent Decree reserve and do not waive any and all legal and equitable rights, remedies and defenses that may be available for violation or enforcement of this Consent Decree.

105. Sauget agrees not to assert in this or any future action any claims against the United States or the State of Illinois, including their agencies and employees, arising from the events or occurrences, up to the date of lodging of this Consent Decree, giving rise to or relating to this action.

106. The United States and the State of Illinois agree that, if Sauget complies with the requirements of this Consent Decree, no further enforcement actions will be taken against Sauget with respect to the March 1986 ABRTF NPDES permit for those pollutants and other parameters in that permit which are expressly regulated by this Consent Decree.

107. Nothing herein shall be construed to limit the authority of the United States to act under Sections 308 and 504 of the Act, 33 U.S.C. §§ 1318 and 1364.

### **XX. MODIFICATION**

108. Except as provided in the Dispute Resolution provisions of Section XIV herein, there shall be no modification of this Consent Decree without the written approval of all the parties and the Court.

**XXI. COSTS OF SUIT**

109. Each party to this action shall bear its own costs and attorney's fees relating to this action.

**XXII. SEVERABILITY**

110. The provisions of this Consent Decree shall be severable, and should any provisions be declared by a court of competent jurisdiction to be inconsistent with State or Federal law and, therefore, unenforceable, the remaining provisions shall remain in full force and effect.

**XXIII. CONTINUING JURISDICTION OF THE COURT**

111. The Court shall retain jurisdiction of this case until termination of this Consent Decree, to enforce or modify this Consent Decree, or to interpret the rights and obligations of the parties to this Consent Decree. During the pendency of this Consent Decree, any party may apply to the Court for any orders, directions or relief necessary to construe or effectuate this Consent Decree.

**XXIV. TERMINATION**

112. Except as provided in Paragraphs 113 and 114, below, this Consent Decree shall terminate on the date on which a reissued NPDES permit for the ABRTF is effective and all permit appeals, if any, have been resolved pursuant to Section 40 of the Illinois

Environmental Protection Act (Ill. Rev. Stat., ch. 111½, par. 1040), if applicable, and 40 CFR 122, provided that the following requirements are met:

a. any disputes have been resolved which were initiated under the provisions of Section XIV of this Consent Decree before the termination date referenced in Paragraph 112, above, and

b. Sauget has paid the monetary penalties and charges due and owing, if any, under this Consent Decree, which shall include but not be limited to stipulated penalties due upon resolution of any disputes which were initiated under the provisions of Section XIV of this Consent Decree before the termination date referenced in Paragraph 112, above.

113. Prior to termination pursuant to Paragraph 112, above, the provisions of this Consent Decree specifically identified in Subparagraphs 113.a. through 113.j., below, shall terminate on the date five (5) years after the date of entry of this Consent Decree, or the date on which all disputes pending under the provisions of Section XIV of this Consent Decree relating to that provision have been resolved, or the date on which Sauget has paid the monetary penalties and charges due and owing, if any, under this Consent Decree relating to that provision, whichever is later:

- a. Subsection IV.D. ("Requirement to construct and operate a high rate diffuser");
- b. Subsection IV.E. ("Requirement to make improvements at the ABRTF");
- c. Subsection IV.H. ("Diffuser performance study");
- d. Subsection IV.I. ("Biological study");
- e. Subsection IV.J. ("Requirement to conduct chemical specific monitoring program");

- f. Subsection IV.K. ("Chronic toxicity testing");
- g. Subsection IV.L. ("Bioconcentration study");
- h. Subsection IV.M. ("Effluent toxicity source identification study and reduction action plan");
- i. Section V. ("Pretreatment program observer"); and
- j. Section VIII. ("Stipulated penalties"), except that Sauget's liability for stipulated penalties for violations of the Pretreatment Program enforcement and monitoring provision at Subparagraph 48.c.ii., above, shall not terminate until each of the following requirements are met: (1) Sauget has provided written documentation to U.S. EPA and IEPA that six (6) months have passed since Monsanto completed its ammonia nitrogen reduction program for the activated chlorine ("ACL") process line and (2) the final local limit of 1,000 lbs/day ammonia nitrogen for Monsanto, specified at Subparagraph 48.a.i., above, has been in effect for six (6) months.

114. Prior to termination of all stipulated penalties pursuant to Paragraph 112 or Subparagraph 113.j., above, Sauget's liability for stipulated penalties under Section VIII of this Consent Decree for violations of the Final Consent Decree Effluent Limits specified at Section IV.C of this Consent Decree shall terminate on a parameter by parameter basis provided that each of the following requirements is met:

- a. Sauget has certified to U.S. EPA and IEPA that the ABRTF has been in compliance with the effluent limits for the given parameter for the period of any twelve (12) consecutive months during any time after the date of entry of this Consent Decree;

b. any pending disputes under the provisions of Section XIV of this Consent Decree relating to violations of the Final Consent Decree Effluent Limits for the given parameter have been resolved; and

c. Sauget has paid the monetary penalties and charges due and owing, if any, under this Consent Decree relating to violations of the Final Consent Decree Effluent Limits for the given parameter.

115. Sauget shall provide written certification, to U.S. EPA and IEPA, by certified or express mail, with return receipt provided, that all requirements for each termination under Paragraph 112, 113, or 114 of this Consent Decree have been met. Sauget shall notify by telephone the Chief (or Acting Chief) of the Compliance Section, Water Division, Region 5, U.S. EPA, at the time Sauget initiates any termination under this Consent Decree. Upon receipt of a copy of Sauget's written certification, U.S. EPA and/or IEPA shall have forty-five (45) days to respond in writing to Sauget's certification. If either U.S. EPA or IEPA disputes Sauget's certification that all necessary requirements for such termination have been satisfied, then it shall specify the reasons therefor in its response, and the termination in question shall not take effect. If either U.S. EPA or IEPA or both fail to respond in writing to Sauget's certification within the forty-five (45) day period, then Sauget's certification shall be deemed disputed, and the termination in question shall not take effect. Sauget may seek resolution of any dispute concerning the partial or complete termination of this Consent Decree pursuant to the Dispute Resolution provisions of Section XIV of this Consent Decree. If both U.S. EPA and IEPA, within the forty-five (45) day period, agree in writing with Sauget's certification that all necessary requirements for termination have been satisfied, or if



Sauget seeks, and is the prevailing party in, dispute resolution concerning the termination in question, then such termination shall be deemed to have taken effect:

a. as to termination pursuant to Paragraph 112 or 113, above, on the date referenced therein or

b. as to termination pursuant to Paragraph 114, above, on the date on which Sauget mailed its certification relating to the termination in question.

#### **XXV. PUBLIC COMMENT**

116. Final approval by the United States and entry of this Consent Decree are subject to 28 U.S.C. § 50.7, which requires, inter alia, publication of notice of this Consent Decree and an opportunity for public comment. The State consents to the entry of this Consent Decree without further notice. Following the close of the public comment period, the United States shall provide to Sauget a copy of each public comment received, if any, and, concurrently upon filing, shall provide to Sauget a copy of its request that the Court enter this Consent Decree. *[Continued on page 69]*

Note:  
This block  
intentionally  
left blank

**XXVI. COMPUTATION OF TIME**

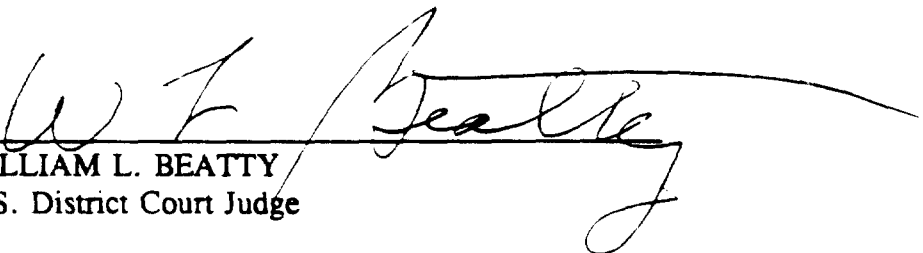
117. In computing any period of time prescribed or allowed by this Consent Decree, the day of the act, or event, after which the designated period of time begins to run is not to be included. The last day of the period so computed is to be included, unless it is a Saturday, Sunday, or legal holiday, in which event the period runs until the end of the next day which is not a Saturday, Sunday, or legal holiday. *[Continued on page 70]*

**Note:  
This block  
intentionally  
left blank**

**XXVII. SIGNATORIES**


118. Each undersigned representative of a party to this Consent Decree certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind such party to this document.

Dated and entered this 18 day of March, 1998

  
\_\_\_\_\_  
WILLIAM L. BEATTY  
U.S. District Court Judge

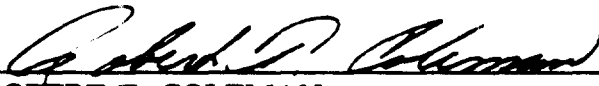
**WE THE UNDERSIGNED HEREBY CONSENT to the entry of this Consent Decree.**

**FOR PLAINTIFF, THE UNITED STATES OF AMERICA:**

  
\_\_\_\_\_  
**BARRY M. HARTMAN**  
Acting Assistant Attorney General  
Environment and Natural Resources Division  
United States Department of Justice  
P.O. Box 7611  
Ben Franklin Station  
Washington, D.C. 20044

1/10/92  
Dated

Frederick J. Hess  
United States Attorney  
Southern District of Illinois

By:   
\_\_\_\_\_  
**ROBERT T. COLEMAN**  
Assistant United States Attorney  
9 Executive Drive  
Suite 300  
Fairview Heights, Illinois 62208

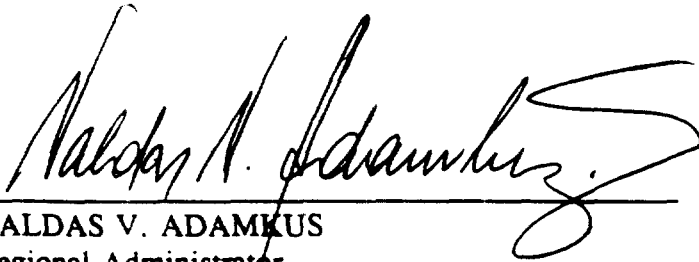
1/13/92  
Dated

**FOR PLAINTIFF, THE UNITED STATES OF AMERICA:**



HERBERT H. TATE, JR.  
Assistant Administrator for Enforcement  
U.S. Environmental Protection Agency  
401 M Street, S.W.  
Washington, D.C. 20460

12/23/91  
Dated

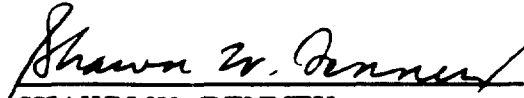


VALDAS V. ADAMKUS  
Regional Administrator  
United States Environmental  
Protection Agency, Region 5  
230 South Dearborn Street  
Chicago, Illinois 60604


12/13/91  
Dated

1100 6 3077

**FOR REALIGNED PLAINTIFF, THE STATE OF ILLINOIS:**

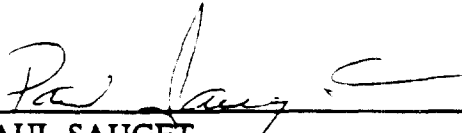
  
\_\_\_\_\_  
SHAWN W. DENNEY  
First Assistant Attorney General  
for the State of Illinois

12/12/91  
Dated


  
\_\_\_\_\_  
JOSEPH E. SVOBODA  
General Counsel  
Division of Legal Counsel  
Illinois Environmental Protection Agency

11/20/91  
Dated

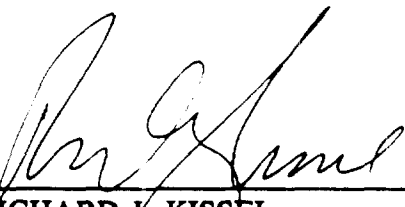
**FOR DEFENDANT, THE VILLAGE OF SAUGET:**

  
\_\_\_\_\_  
**PAUL SAUGET**  
Mayor, Village of Sauget

11/12/91  
Dated

  
\_\_\_\_\_  
**HAROLD G. BAKER, JR.**  
Attorney for Village of Sauget

11/12/91  
Dated

  
\_\_\_\_\_  
**RICHARD J. KISSEL**  
Attorney for Village of Sauget

11/14/91  
Dated

**ATTACHMENT A TO CONSENT DECREE**  
**U.S. et al. v. Village of Sauget**

**PROTOCOL FOR ADDITION OF POWDERED ACTIVATED CARBON  
TO THE AMERICAN BOTTOMS REGIONAL WASTEWATER TREATMENT FACILITY**

**A. Existing Physical Facilities**

The facilities which will be utilized at the American Bottoms Regional Wastewater Treatment Facility ("ABRTF") for the addition of powdered activated carbon ("PAC" or "carbon") include the Virgin Carbon silo with associated truck transport unloading equipment and a continuous carbon feed system for carbon addition to the mixed liquor channel.

**B. Computation of Required Daily PAC Addition**

1. The required daily PAC addition to ABRTF of not less than 29 mg/l shall be determined by using the following formula:

$$\text{Carbon (lb/day)} = \text{Effluent flow}^* (\text{MGD}) \times 29 (\text{mg/l}) \times 8.34 (\text{lbs/gal})$$

\*Effluent flow for previous day

2. The assumptions to be used for purposes of the above carbon addition formula are:

a. The measurement for wastewater discharged shall be by the plant effluent (discharge) flow meter and

b. The addition of powdered activated carbon during a given 24-hour period shall be computed for that period based upon the wastewater flow for the preceding 24-hour period.



**ATTACHMENT A TO CONSENT DECREE**  
**U.S. et al. v. Village of Sauget**  
**(Continued)**

**C. Summary of ABRTF Daily Field Procedures**

<u>Approximate Time</u>	<u>Activity</u>
6:00 a.m.	Sampling and record day for yesterday is completed.
7:00 a.m.	Begin assembly of operational data for the preceding 24-hour period: <ol style="list-style-type: none"><li>1. Carbon feed system readings.</li><li>2. Plant effluent flow.</li></ol>
8:00 a.m.	Compute the day's carbon addition using B.1. above.  Issue instructions to accomplish the computed day's carbon addition.
After 9:00 a.m.	Review operation logs from preceding 24-hour period.  Record PAC silo outage readings by shift.  Compute carbon actually added to mixed liquor and compare to yesterday's instructions.

**ATTACHMENT A TO CONSENT DECREE**  
**U.S. et al. v. Village of Sauget**  
**(Continued)**

After  
9:00 a.m.(cont.)

Determine reason for difference and,  
if necessary, modify operations to  
eliminate error on today's addition.

Input yesterday's carbon addition into computer  
spreadsheet.

Check carbon inventory and determine need to reorder.

Check status of placed orders.

Arrange for carbon unloading when  
truck transport arrives at plant.

Review other operational and/or  
trouble reports on carbon feed  
equipment.

Implement repair of equipment if necessary.

**D. Errors in Process Measurements**

Due to the peculiar characteristics of powdered activated carbon and the use of existing equipment which was not intended for this type of service, errors in measurement of the carbon dosage rate are potentially significant.

**E. Definition of "Day"**

For the purposes hereof, "day" shall commence at 6:00 a.m. (local) on a particular calendar day and shall cease 24 hours later at 5:59 a.m. on the subsequent calendar day.

**ATTACHMENT B TO CONSENT DECREE**

**U.S. et al. v. Village of Sauget**

**PROTOCOL FOR CALCULATION OF MEAN CELL RESIDENCE TIME  
FOR THE  
AMERICAN BOTTOMS REGIONAL WASTEWATER TREATMENT FACILITY**

**A. Mean Cell Residence Time**

The sludge retention time ("SRT") and mean cell residence time ("MCRT") are essentially equivalent, although not identical. Plant operations and data reports will use MCRT. This is the method of secondary treatment process control which personnel are familiar with and have used in the past.

The definition of MCRT, the input parameters, and appropriate units are defined in Subsection IV.A., Paragraph 12, of this Consent Decree.

**B. Use of MCRT for Process Control**

For process control of the activated sludge system, a predetermined MCRT is maintained by controlling the amount of biomass which leaves the system as waste activated sludge ("WAS"). The daily amount of WAS is determined by rearranging the equation presented in Paragraph 12 as follows:

$$F_w = \frac{VX + V_{fc}X_{fc}}{X_w (\text{MCRT})} - \frac{F_e X_e}{X_w}$$

The only known in this equation is the target MCRT. All other inputs are estimated for the current day based upon recent operating history, (e.g., yesterday's data in many cases), or changes planned for the particular day.

In the data summary report, the actual MCRT shall be computed after all data inputs are known for past operations, using the equation in Paragraph 12 of this Consent Decree.

**ATTACHMENT B TO CONSENT DECREE**  
**U.S. et al. v. Village of Sauget**  
**(Continued)**

**C. Summary of ABRTF Field Procedures**

<b><u>Approximate Time</u></b>	<b><u>Activity</u></b>
6:00 a.m.	Sampling and record day for yesterday is completed.
7:00 a.m.	Begin assembly of operational data for yesterday: <ol style="list-style-type: none"><li>1. Number of final clarifiers in service.</li><li>2. Number of aeration tanks in service.</li><li>3. Sludge blanket depths.</li><li>4. Plant effluent flow.</li><li>5. Sludge wasting flow.</li></ol>
8:00 a.m.	Begin analyses for suspended solids for: <ol style="list-style-type: none"><li>1. Mixed liquor.</li><li>2. Return activated sludge.</li><li>3. Plant effluent.</li></ol>
1:00 p.m.	Laboratory data available.

**ATTACHMENT B TO CONSENT DECREE**

**U.S. et al. v. Village of Sauget**

**(Continued)**

- |           |   |
|-----------|---|
| 2:00 p.m. | Compute yesterday's MCRT.   |
| 2:30 p.m. | Estimate inputs for MCRT and compute sludge wasting amount for today.                   |
|           | Inputs may or may not be yesterday's data (e.g., It may be raining today or yesterday). |
|           | Considerable experience and judgment are required for this step.                        |
| 3:00 p.m. | Issue instructions to operators to waste the calculated amount of WAS.                  |

**D. Data Collection**

The monthly data summary presents all field measurements provided for the calculation of the actual MCRT. A similar spreadsheet will be prepared by Sauget to record the estimated values used to set the WAS wasting rate and the MCRT used in the calculation.

**E. Definition of "Day"**

For the purposes hereof, a "day" shall commence at 6:00 a.m. (local) on a particular calendar day and shall cease 24 hours later at 5:59 a.m. on the subsequent calendar day.

ATTACHMENT D TO CONSENT DECREE

U.S. et al. v. Village of Sauget

**CALCULATION OF WHOLE EFFLUENT TOXICITY (WET) IN TU<sub>a</sub>  
BASED UPON TOTAL AMMONIA CONCENTRATION AND pH**

$$\text{WET} = \frac{\text{Unionized Ammonia Concentration ("UIA")}}{\text{UIA Equivalent to 1 TU}_a \text{ ("TUaEq")}}$$

$$\text{UIA} = \text{Total Ammonia} / (1 + 10^{(0.09018 + (2729.92/(\text{Temp} + 273.2)) - \text{pH}))}$$

*References: USEPA Ambient Water Quality Criteria for Ammonia. EPA 440/5/85-001. January 1985.*

*Emerson et al. Aqueous ammonia equilibrium calculations: Effect of pH and temperature. J. Fish. Res. Board Can., 32:2379-2383. December 1975.*

$$\text{TUaEq} = (\text{LC}_{50} \text{ at pH } 8.0) * 1.25 / (1 + 10^{(7.4 - \text{pH})})$$

*Reference: Mount, D.I. and Anderson-Carnahan, L. Methods for aquatic toxicity identification evaluation -- Phase II: Toxicity identification procedures. EPA/600/3-88/035. February 1989.*

Given: Temperature = 25°C  
Ceriodaphnia dubia LC<sub>50</sub> at pH 8.0 and 25°C = 1.20 mg/l unionized ammonia

*Reference: Norberg-King, T. Ammonia toxicity data. Memorandum to Water Division, Region 5, U.S. EPA. February 21, 1991.*